

Appl. No. 10/018,148
Reply to Office Action of November 26, 2003

Priority Claim Under 35 USC 119

The Examiner acknowledged the priority claim but included no indication concerning the certified priority documents. It is submitted that copies were provided in the international stage and that WIPO forwarded the documents. Confirmation is therefore requested so that the record will be complete.

REMARKS/ARGUMENTS

The disclosure is amended to remove reference to claims as require by the Examiner.

Claims 5-7 are combined into claim 1.

Claims 17-19 are combined into claim 9.

Claims 1-3 are rejected as anticipated by May (USP 5,003,278) and Claims 1-4 are rejected as anticipated by Osada et al (USP 5,703,557).

The rejections are avoided by combining non-rejected claims into claims 1. Furthermore, the references do not render the claims obvious.

The differences between claims 1-3 of the present invention and May is in object and manner of attaining that object. The object of May's invention is to prevent noise from running to the circuit by making use of mismatch for impedance of a cable caused by clamping the ferrite case to the cable (which is formed of two half cores connected by two flexible hinges).

In the case, noise is not fundamentally deleted.

And noise may be reflected by the ferrite case, be given off outside and run to other circuits.

Noise may occur due to a power failure or a malfunction and a have detrimental effect on other circuits.

In addition, the ferrite case clamped to the cable may warp the waveform of any signal running through the cable.

In contrast, the present invention is magnetic material which is capable of deleting noise by suppressing high-frequency current.

So, there is a difference between an ideology of the art of the present invention and one of May's invention.

High-frequency current including noise which runs through a cable produces a magnetic field. The energy of the magnetic field converts into thermal energy and the thermal energy is given off outside. In this way, high-frequency current and noise is suppressed.

Although the explanation of converting the energy of the magnetic field into thermal energy is not specifically described in the present application it is inherent in the structure (the explanation of suppressing unnecessary high-frequency current running in a signal cable is described at page 3 line 10-12 of the present application).

A major difference, as a practical matter, between the present invention and the art is that, in the present invention noise is not reflected by the material whereby it is given off outside and can jump to other circuits. The noise removed by the present invention is converted into thermal energy and the thermal energy which is given off cannot jump to adjacent circuits as electrical noise.

The present invention has the advantageous effect that there is no degradation of adjacent or nearby circuits by stray electromagnetic noise given off by the art, because of the selection of materials capable of suppressing high-frequency current, which has large loss in attenuation characteristic of high-frequency area and converts the energy of the magnetic field to thermal energy in high-frequency area.

Therefore, there is difference between an ideology of the art of the present invention and that of May's invention, and this is enabled by the difference between the material of the present invention and that of May's invention.

Because of differences in the way it works and the materials used, the present invention is not shown or suggested by May. So, the present invention is not easily able to invent from May's invention.

The purpose of Osada's invention is to prevent noise from passing through the circuit by making use of a mismatch for impedance of a cable produced by clamping a ferrite case to the cable (similar to the method and principle of operation of May, as discussed above).

In this case, noise is not fundamentally deleted.

Hence, there is difference between the manner of operation inherent in the present invention and that of Osada's invention, and this is due to the difference between the material and structure of the present invention and that of Osada's invention.

It is therefore submitted that the present invention is not shown by Osada nor can it be derived from the teaching in Osada.

Claims 5-7 are rejected by combining Osada (USP 5,703,557) with Uchida (USP 6,143,406).

The difference between claim 5-7 and Uchida's invention is also reflected in the structure and composition differences. Uchida's invention is magnetic composite tape consists of ferrite rubber and conductor Ni, Al, Cu etc.

The common mode impedance for a circuit can be made larger by providing the magnetic composite tape.

Radiated noise is reduced by attaching the tape to a conductor. connected to ground and the tape is capable of attaching easily the tape to the conductor.

Therefore, operation of Uchida's invention is to prevent noise from running to circuit by grounding the tape through a conductor connected to ground.

From the disclosure of Uchida's invention one understands that mechanism which noise is reduced by attaching the tapes to the conductor, is as same as the above "ferrite" inventions by May and Osada. That is, noise is not fundamentally deleted.

Hence, there is difference between the manner of operation of the present invention and that of Uchida's invention, and difference between the material of the present invention and that of Uchida's invention.

In addition, it is noted that a ferrite has Snoek's limit that it makes magnetic permeability of the ferrite lower in high-frequency area as described in Uchida's disclosure. In the present invention the material is selected in consideration to Snoek's limit. So, the present invention cannot be derived from the disclosure of Uchida.

As discussed in detail above, Osada fails to show or suggest the present invention. Combining Osada and Uchida does not bridge the differences or otherwise render claims 5-7 obvious.

Ogawa is combined with Osada and Uchida to reject claims 8-19.

The purpose of Ogawa's invention is to prevent noise from running to the circuit by making use of mismatch for impedance of an earphone cable occurred by attaching the noise filter to the cable, which is comprises LC filter or ferrite beads. This is the same principle as May's invention. That is, noise is not fundamentally deleted.

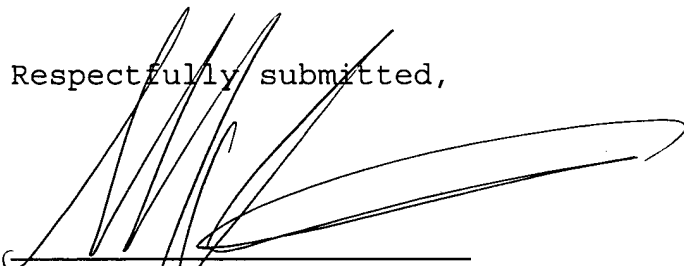
Hence, there is difference between the operation of the present invention and that of Ogawa's invention, as discussed above with respect to May's disclosure. Combining Ogawa with the other cited art does not bridge this difference or otherwise render the invention obvious. Thus, the present invention is not derivable from Ogawa's disclosure alone or in the cited combination.

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In view of the above, it is submitted that the present invention is not shown or suggested by the cited art. Withdrawal of the rejections and allowance of the application are respectfully requested.

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Respectfully submitted,



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